

**Amendments to the Specification:**

Please replace the paragraph beginning on line 33 of page 3 with the following amended paragraph:

Two matrices are introduced:  $\mathbf{V}$  is the ~~eigenvalue~~ eigenvector matrix for  $\mathbf{H}^H\mathbf{H}$  and  $\mathbf{\Lambda}$  is the eigenvalue matrix for  $\mathbf{H}^H\mathbf{H}$ . Device 100 transmits the product  $\mathbf{A}\mathbf{s}$ , where the matrix  $\mathbf{A}$  is the spatial multiplexing transmit matrix, where  $\mathbf{A} = \mathbf{V}\mathbf{D}$ . The matrix  $\mathbf{D} = \text{diag}(d_1, \dots, d_L)$  where  $|d_p|^2$  is the transmit power in  $p^{\text{th}}$  mode, or in other words, the power of the  $p^{\text{th}}$  one of the  $L$  signals where  $p = 1$  to  $L$ . Device 200 receives  $\mathbf{H}\mathbf{A}\mathbf{s} + \mathbf{n}$ , and after maximal ratio combining for each of the modes, device 200 computes  $\mathbf{c} = \mathbf{A}^H\mathbf{H}^H\mathbf{H}\mathbf{A}\mathbf{s} + \mathbf{A}^H\mathbf{H}^H\mathbf{n} = \mathbf{D}^H\mathbf{D}\mathbf{\Lambda}\mathbf{s} + \mathbf{D}^H\mathbf{V}^H\mathbf{H}^H\mathbf{n}$ .